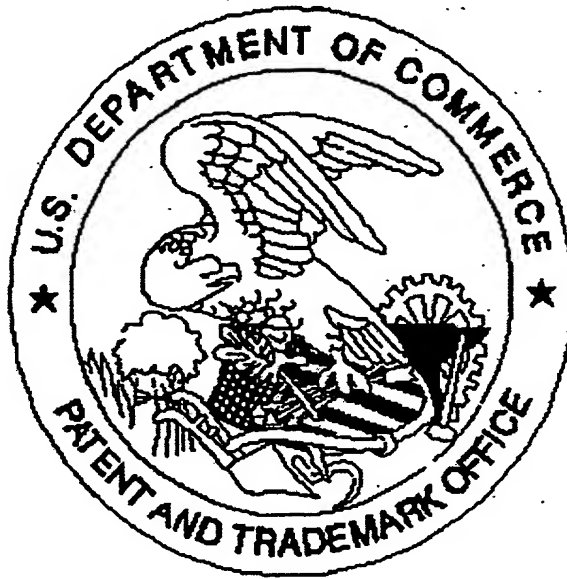


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for scanning. (Document title)

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**In re the application of:** Bates, *et al.*

**Serial No.:** Not Yet Assigned

**Filed:** Herewith (December 21, 2001)

**For: NOVEL GLUTAMATE RECEPTOR  
MODULATORY PROTEINS AND NUCLEIC  
ACID MOLECULES AND USES THEREFOR**

**Attorney Docket No.:** GNN-024

**Commissioner for Patents**

**Box Sequence**

**Washington, D.C. 20231**

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Dear Sir:

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Signature

Larry Taylor

Please Print Name of Person Signing

Respectfully submitted,

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By: 

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Registration No. 46,931

Attorney for Applicants

Date: December 21, 2001

## SEQUENCE LISTING

<110> Brian Gaither Bates  
Kamalaka Gulukota  
Yuhong Xie  
Janet Elizabeth Paulsen

<120> NOVEL GLUTAMATE RECEPTOR MODULATORY PROTEINS AND  
NUCLEIC ACID MOLECULES AND USES THEREFOR

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Ser	Leu	His	Ser	Glu	Pro	Val	Ala	Arg	Ser	Ser	Ser	Ser	Gln	Gly	Ser				
1045					1050					1055									
Leu	Met	Glu	Gln	Ile	Ser	Ser	Val	Val	Thr	Arg	Phe	Thr	Ala	Asn	Ile				
1060					1065					1070									
Ser	Glu	Leu	Asn	Ser	Met	Met	Leu	Ser	Thr	Ala	Ala	Pro	Ser	Pro	Gly				
1075					1080					1085									
Val	Gly	Ala	Pro	Leu	Cys	Ser	Ser	Tyr	Leu	Ile	Pro	Lys	Glu	Ile	Gln				
1090					1095					1100									
Leu	Pro	Thr	Thr	Met	Thr	Thr	Phe	Ala	Glu	Ile	Gln	Pro	Leu	Pro	Ala				
1105					1110					1115					1120				
Ile	Glu	Val	Thr	Gly	Gly	Ala	Gln	Pro	Ala	Ala	Gly	Ala	Gln	Ala	Ala				
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Gly	Asp	Ala	Ala	Arg	Glu	Ser	Pro	Ala	Ala	Gly	Pro	Glu	Ala	Ala	Ala				
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Ala	Lys	Pro	Asp	Leu	Glu	Glu	Leu	Val	Ala	Leu	Thr	Pro	Pro	Ser	Pro				
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Ile	Ile	Arg	Asp	Tyr	Thr	Gln	Ser	Ser	Ser	Ser	Leu								

1210

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 275 280 285  
 Met Arg Arg Leu Gly Leu Ala Gly Glu Phe Leu Leu Gly Ser Asp  
 290 295 300  
 Gly Trp Ala Asp Arg Tyr Asp Val Thr Asp Gly Tyr Gln Arg Glu Ala  
 305 310 315 320  
 Val Gly Gly Ile Thr Ile Lys Leu Gln Ser Pro Asp Val Lys Trp Phe  
 325 330 335  
 Asp Asp Tyr Tyr Leu Lys Leu Arg Pro Glu Thr Asn Leu Arg Asn Pro  
 340 345 350  
 Trp Phe Gln Glu Phe Trp Gln His Arg Phe Gln Cys Arg Leu Glu Gly  
 355 360 365  
 Phe Ala Gln Glu Asn Ser Lys Tyr Asn Lys Thr Cys Asn Ser Ser Leu  
 370 375 380  
 Thr Leu Arg Thr His His Val Gln Asp Ser Lys Met Gly Phe Val Ile  
 385 390 395 400  
 Asn Ala Ile Tyr Ser Met Ala Tyr Gly Leu His Asn Met Gln Met Ser  
 405 410 415  
 Leu Cys Pro Gly Tyr Ala Gly Leu Cys Asp Ala Met Lys Pro Ile Asp  
 420 425 430  
 Gly Arg Lys Leu Leu Asp Ser Leu Met Lys Thr Asn Phe Thr Gly Val  
 435 440 445  
 Ser Gly Asp Met Ile Leu Phe Asp Glu Asn Gly Asp Ser Pro Gly Arg  
 450 455 460  
 Tyr Glu Ile Met Asn Phe Lys Glu Met Gly Lys Asp Tyr Phe Asp Tyr  
 465 470 475 480  
 Ile Asn Val Gly Ser Trp Asp Asn Gly Glu Leu Lys Met Asp Asp Asp  
 485 490 495  
 Glu Val Trp Ser Lys Lys Asn Asn Ile Ile Arg Ser Val Cys Ser Glu  
 500 505 510  
 Pro Cys Glu Lys Gly Gln Ile Lys Val Ile Arg Lys Gly Glu Val Ser  
 515 520 525  
 Cys Cys Trp Thr Cys Thr Pro Cys Lys Glu Asn Glu Tyr Val Phe Asp  
 530 535 540  
 Glu Tyr Thr Cys Lys Ala Cys Gln Leu Gly Ser Trp Pro Thr Asp Asp  
 545 550 555 560

Leu Thr Gly Cys Asp Leu Ile Pro Val Gln Tyr Leu Arg Trp Gly Asp  
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 Pro Glu Pro Ile Ala Ala Val Val Phe Ala Cys Leu Gly Leu Leu Ala  
 580 585 590  
 Thr Leu Phe Val Thr Val Ile Phe Ile Ile Tyr Arg Asp Thr Pro Val  
 595 600 605  
 Val Lys Ser Ser Ser Arg Glu Leu Cys Tyr Ile Ile Leu Ala Gly Ile  
 610 615 620  
 Cys Leu Gly Tyr Leu Cys Thr Phe Cys Leu Ile Ala Lys Pro Lys Gln  
 625 630 635 640  
 Ile Tyr Cys Tyr Leu Gln Arg Ile Gly Ile Gly Leu Ser Pro Ala Met  
 645 650 655  
 Ser Tyr Ser Ala Leu Val Thr Lys Thr Asn Arg Ile Ala Arg Ile Leu  
 660 665 670  
 Ala Gly Ser Lys Lys Lys Ile Cys Thr Lys Lys Pro Arg Phe Met Ser  
 675 680 685  
 Ala Cys Ala Gln Leu Val Ile Ala Phe Ile Leu Ile Cys Ile Gln Leu  
 690 695 700  
 Gly Ile Ile Val Ala Leu Phe Ile Met Glu Pro Pro Asp Ile Met His  
 705 710 715 720  
 Asp Tyr Pro Ser Ile Arg Glu Val Tyr Leu Ile Cys Asn Thr Thr Asn  
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 Leu Gly Val Val Thr Pro Leu Gly Tyr Asn Gly Leu Leu Ile Leu Ser  
 740 745 750  
 Cys Thr Phe Tyr Ala Phe Lys Thr Arg Asn Val Pro Ala Asn Phe Asn  
 755 760 765  
 Glu Ala Lys Tyr Ile Ala Phe Thr Met Tyr Thr Thr Cys Ile Ile Trp  
 770 775 780  
 Leu Ala Phe Val Pro Ile Tyr Phe Gly Ser Asn Tyr Lys Ile Ile Thr  
 785 790 795 800  
 Met Cys Phe Ser Val Ser Leu Ser Ala Thr Val Ala Leu Gly Cys Met  
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 Phe Val Pro Lys Val Tyr Ile Ile Leu Ala Lys Pro Glu Arg Asn Val  
 820 825 830  
 Arg Ser Ala Phe Thr Thr Ser Thr Val Val Arg Met His Val Gly Asp  
 835 840 845  
 Gly Lys Ser Ser Ser Ala Ala Ser Arg Ser Ser Ser Leu Val Asn Leu  
 850 855 860

Trp Lys Arg Arg Gly Ser Ser Gly Glu Thr Leu Arg Tyr Lys Asp Arg  
 865 870 875 880  
 Arg Leu Ala Gln His Lys Ser Glu Ile Glu Cys Phe Thr Pro Lys Gly  
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 Ser Met Gly Asn Gly Gly Arg Ala Thr Met Ser Ser Ser Asn Gly Lys  
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 Ser Val Thr Trp Ala Gln Asn Glu Lys Ser Thr Arg Gly Gln His Leu  
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 Trp Gln Arg Leu Ser Val His Ile Asn Lys Lys Glu Asn Pro Asn Gln  
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 Thr Ala Val Ile Lys Pro Phe Pro Lys Ser Thr Glu Asn Arg Gly Pro  
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 Gly Ala Ala Ala Gly Gly Gly Ser Gly Pro Gly Val Ala Gly Ala Gly  
 965 970 975  
 Asn Ala Gly Cys Thr Ala Thr Gly Gly Pro Glu Pro Pro Asp Ala Gly  
 980 985 990  
 Pro Lys Ala Leu Tyr Asp Val Ala Glu Ala Glu Glu Ser Phe Pro Ala  
 995 1000 1005  
 Ala Ala Arg Pro Arg Ser Pro Ser Pro Ile Ser Thr Leu Ser His Leu  
 1010 1015 1020  
 Ala Gly Ser Ala Gly Arg Thr Asp Asp Asp Ala Pro Ser Leu His Ser  
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 Glu Thr Ala Ala Arg Ser Ser Ser Ser Gln Gly Ser Leu Met Glu Gln  
 1045 1050 1055  
 Ile Ser Ser Val Val Thr Arg Phe Thr Ala Asn Ile Ser Glu Leu Asn  
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 Ser Met Met Leu Ser Thr Ala Ala Thr Pro Gly Pro Pro Gly Thr Pro  
 1075 1080 1085  
 Ile Cys Ser Ser Tyr Leu Ile Pro Lys Glu Ile Gln Leu Pro Thr Thr  
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 Met Thr Thr Phe Ala Glu Ile Gln Pro Leu Pro Ala Ile Glu Val Thr  
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 Gly Gly Ala Gln Gly Ala Thr Gly Val Ser Pro Ala Gln Glu Thr Pro  
 1125 1130 1135  
 Thr Gly Ala Glu Ser Ala Pro Gly Lys Pro Asp Leu Glu Glu Leu Val  
 1140 1145 1150  
 Ala Leu Thr Pro Pro Ser Pro Phe Arg Asp Ser Val Asp Ser Gly Ser  
 1155 1160 1165



Thr Thr Pro Asn Ser Pro Val Ser Glu Ser Ala Leu Cys Ile Pro Ser  
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Ser Pro Lys Tyr Asp Thr Leu Ile Ile Arg Asp Tyr Thr Gln Ser Ser  
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Ser Ser Leu

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Xaa Xaa Xaa

[illegible]